

# Fountain Of Youth Circuit

**Objective:** To complete 4 rounds of circuit with complete range of motion per exercise according to guidelines.

<b>Beginner</b>	<b>Full Circuit: 4 rounds of 30 Butt to Heel Squats 30 Lockout Pushups 30 Full Sit-ups 10 Full Pull-ups</b>	<b>&lt; 20 Minutes</b>
<b>Intermediate</b>	<b>Full Circuit: “Same as above”</b>	<b>&lt; 16 Minutes</b>
<b>Advanced</b>	<b>Full Circuit: 4 rounds of “Same as above”</b>	<b>&lt;12 Minutes</b>

## Benefits

- **Improved Body Composition:** Greater lactic acid accumulation is associated with an increase in the production of endogenous growth hormone. Research studies have shown that growth hormone is associated with a trainee’s ability to lose body fat. A study out of the Journal of Clinical Endocrinology and Metabolism found that those subjects who had clinically **low levels of growth hormone had higher body fat** (2). A 2011 study out of the Massachusetts General Hospital found that GH deficient subjects who received growth hormone replacement therapy over a six month period **had significant increases in lean body mass and decreases in fat mass when compared to their placebo counterparts** (1). The combination of circuiting higher rep ranges and little to no rest will spike lactate potentially leading to a positive endogenous growth hormone response!
- **Peripheral Heart Action:** The body is trying to shunt oxygenated blood from one body part to another while trying to remove waste by-products. During the squats the blood needs to get to the legs, then to the stabilizers and prime movers during pushups, then to the abdomen and hip flexors during sit ups, and lastly to the stabilizers and prime movers during pull-ups. This shunting can lead to an **increased demand on the cardiovascular system, in turn allowing for improvements in cardiovascular health and muscular endurance**. Especially great for endurance athletes who need a break from the grind of long, slow, conventional endurance training.

- **Improved Structural Balance:** Over time complete range of motion training can aid in lengthening of muscle fibers and surrounding fascial tissue. Including antagonistic muscle group training in a workout can improve the length tension ratio between the muscles on opposite sides of a joint.
- **Improved Technique in Body Weight Exercises:** This workout is an opportunity to work on technique in full range of motion body squats, pushups, sit-ups, and pull-ups.
- **Active Recovery:** Due to the blood flow demands and growth hormone response, this bodyweight circuit workout can be viewed as a form of active recovery at the end of a weight training workout or on off-days from weight training.

## Guidelines

Exercise	Repetitions	Rest Interval	Technique
A1: Butt to Heel (mobility dependent) Body Squats	30	No Rest	Heel to butt with torso remaining as vertical as possible. Hindu squats are permitted
A2: Full Range of Motion with 1second lockout Pushups	30	No Rest	Humerus 45degrees or less from sides. Chest touches or upper arms parallel to floor at bottom. Arms locked out for 1 second pause at top.
A3: Full Range of Motion Sit-Ups	30	No Rest	Feet can be anchored. Shoulder blades touch ground at the bottom. Torso vertical at top. Arms can be crossed in front or can swing overhead.
A4: Full Range of Motion with 1second pause at bottom Pull-ups	10	No Rest	Arms fully extended for 1s at bottom. Chin above bar at top. No kip-ups!!

- Cannot move on to the next exercise until all repetitions of previous exercise have been completed.
- Complete 4 rounds with full range of motion technique in as little time as possible.

## Programming

### 8 Week Progression

<b>Week I</b>	Try to complete 1 round at the end of a workout or on off day. On a separate day try same thing again.
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<b>Week 2</b>	Try to complete 1 round at the end of a workout or on off day. Rest as long as you need, then try to complete a second round. On a separate day try same thing again.
<b>Week 3</b>	Try to complete 1 round at the end of a workout or on off day. Rest as long as you need, then try to complete a second round. Try this on two other days during the week.
<b>Week 4</b>	Try to complete 2 rounds in a row with no rest. Perform on one or two other days during the week.
<b>Week 5</b>	Try to complete 2 rounds in a row with no rest. Rest as long as you need, then try to complete one more round. Try this one or two other days during the week.
<b>Week 6</b>	Try to complete 3 rounds in a row with no rest. Try this one or two other days during the week.
<b>Week 7</b>	Try to complete 3 rounds in a row with no rest. Rest as long as you need, then try to complete one more round. Try this one or two other days during the week.
<b>Week 8</b>	Complete 4 rounds with no rest in as little time as possible! Good luck.

***Believe, Work, and .....Become!!***

#### **References**

1. Biller B, Ji H, Ahn H, Savoy C, Siepl E, Popovic V, Coculescu M, Roemmler J, Gavrila C, Cook D, Strasburger C. **Effects of once-weekly sustained-release growth hormone: a double blind, placebo- controlled study in adult growth hormone deficiency.** *The Journal of Clinical Endocrinology and Metabolism.* 96(6). Pp 1718-1726. 2011.
2. Hwu C, Kwok C, Lai T, Shih K, Lee T, Hsiao L, Lee S, Fang V, Ho L. **Growth hormone (GH) replacement reduces total body fat and normalizes insulin sensitivity in GH-deficient adults: a report of one-year clinical experience.** *The Journal of Clinical Endocrinology and Metabolism.* 88;10. Pp 3285-3292. 1997.